Strategic Trends Analysis

The Landscape of Future Conflict

The Army Capabilities Integration Center's (ARCIC) Future Warfare Division leads the Army Chief of Staff's future study plan, Unified Quest. By exploring the future operational environment of 2030-2040, we inform today's strategic decisions through a vision of future conflict. The following trends are derived from Unified Quest events, National Intelligence Council documents, and other strategic trends reports.

Enduring Trends

The rise of others will form a world of multiple spheres of influence that are likely to create new security and resource competitions. Historically, these shifts in power have been extremely violent eras (e.g., WWII).

Traditional and non-traditional actors will have greater ability to achieve strategic effects, requiring an increased emphasis on *conflict prevention*.

Large-scale violence is no longer monopolized by the state. Access to rapidly changing technology enables intellectual machines to be leveraged by anyone, while the proliferation of advanced technology and nuclear weapons will make *deterrence* difficult.

Rising powers pursuing their own interests *challenge* international *norms* and increase the demand to assure our international community partners.

The nation state remains the international center of power; intensified urbanization and emerging resource competitions challenge fragile institutions.

Conflict is *more than technology*; understanding and compelling the behavior of populations, governments, and militaries is vital to achieving national objectives.

Cyberspace operations are continuous and conflict can be ongoing even when the nation is at relative peace.

Reliance on emerging partners (including non-state actors) increases -- some of these will have few interests in common with the United States or our traditional allies.

A ready, *regionally engaged*, and culturally informed force can build partners and their capacity, thus assuring access.

Social decentralization increases as people organize themselves based more on ideologies than traditional states.

Synthetic biology will have positive and negative effects -- advancing new disease cures or potentially developing dangerous diseases and weapons.

Emerging Trends

On our current investment trajectory, the Army risks overmatch by 2025 in several investment categories.

Modern technology affects **brain development** in younger generations who show a greater ability to multi-task but struggle with complex problem solving.

Humans could be outfitted with physical and cognitive augmentations. Bio/nanotech revolutions could extend life through nanobot-assisted bodies.

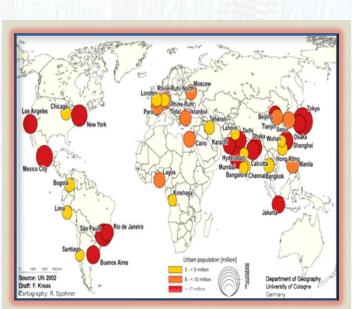
Global urbanization is manifested by emergence of numerous megacities that will present dynamic challenges previously not confronted by land forces.

Every week 1.5 million people migrate to urban areas; by 2030, 60 percent of the world's population is expected to live in cities.

Poorly structured megacities may prove to be a breeding ground for violence and a source of conflict.

While U.S. military intervention will not be required for instability in every megacity, it is plausible that one will be a component of an operational environment from which our vital national interests are threatened.

Operating in a megacity requires forces to maneuver through multiple dimensions (subsurface-cyber-air) simultaneously to achieve required effects.



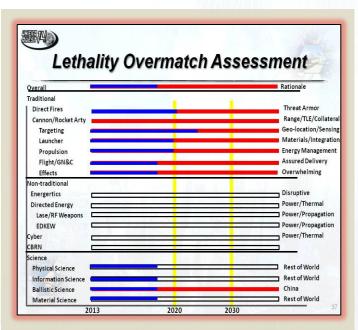
The International Geographical Union has compiled data on current megacities. As defined by the United Nations, a megacity is a city with more than 10 million inhabitants. Twenty four megacities exist in 2014; that number will exponentially increase by 2030.





Competitive Overmatch

As competitors invest in areas that challenge U.S. capabilities, by 2025 the operational overmatch advantages that we enjoy today are placed at risk. Technology experts and scientists recently evaluated Training and Doctrine Command's assessments of threat overmatch; results are depicted below. Their review evaluated competitor investments as well as capabilities and technologies attainable by the United States to counter these emerging threats. They found that it is possible to maintain a decisive material edge and operational overmatch. However, without a focused investment strategy and an *Army modernization effort*, future Soldiers will be underresourced and disadvantaged in the next conflict.



Training and Doctrine Command G2, with Science and Technology professionals estimated threat overmatch based on investment trends of adversaries, competitors, and our current Defense budget.







The speed events unfold will require the Army to rapidly respond (measured in hours and days vs. weeks and months) with an *operationally significant force* to protect vital national interests.

The Army *must modernize;* an integrated science and technology strategy is required to operationalize the desired attributes of an Expeditionary Force.

Protection and sustainment systems must be more expeditionary to counter anti-access and area-denial threat strategies and achieve national objectives.

Increased speed of information requires more rapid and *discriminate* responses to crises.

Future crises require increased multinational and whole-of-government approaches; however, partner and interagency capacities may not be sufficient.

As technology exponentially advances, the *Army must replace systems* more rapidly to equip the future force in an effective and timely manner.

The Army must maximize its number one capital investment, *the Soldier*, by increasing cognitive and physical abilities to assimilate complex situations.

The environment will be increasingly transparent due to widespread information technology. Mission command must be capable of handling "big data."

Power projection will be contested immediately and require the Army to achieve *Expeditionary Maneuver* through additional capabilities.

Comprehensive change to Soldier assessment and development, **coupled with human augmentation**, may mitigate effects of a shrinking recruit-able population that is due to increasing physical, cognitive, and emotional challenges.

Future land forces require the capability and capacity to gain **situational understanding** of complex megacity environments (physical, human, and information).

Operating in a megacity requires "multidimensional maneuver" to achieve desired effects.

Global posture and regional alignment will influence expeditionary responsiveness and speed.



